

Amendments to the Claims:

Please amend the claims as follows:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for manufacturing a semiconductor device, comprising:
forming an amorphous semiconductor film on an insulating surface;
adding a metal element for promoting crystallization to the amorphous semiconductor film;
heating the amorphous semiconductor film to form a crystallized semiconductor film;
irradiating a continuous wave laser beam to the crystallized semiconductor film in a direction from an upper surface of the crystallized semiconductor film to a bottom surface of the crystallized semiconductor film; and
removing an upper portion of the crystallized semiconductor film to which the continuous wave laser beam is irradiated[[]],
wherein the upper portion includes the upper surface.

2. (Original) A method according to claim 1, wherein the upper portion is a region including the metal element.

3. (Currently Amended) A method for manufacturing a semiconductor device, comprising:
forming an amorphous semiconductor film on an insulating surface;
adding a metal element for promoting crystallization to the amorphous semiconductor film;
heating the amorphous semiconductor film to form a crystallized semiconductor film;
irradiating a continuous wave laser beam to the crystallized semiconductor film in a direction from an upper surface of the crystallized semiconductor film to a bottom surface of the crystallized semiconductor film; and
removing an upper portion of the crystallized semiconductor film to which the

continuous wave laser beam is irradiated to reduce a concentration of the metal element in the crystallized semiconductor film to a lower detection limit of SIMS (secondary ion mass spectroscopy) [(.)].

wherein the upper portion includes the upper surface.

4. (Original) A method according to claim 3, wherein the upper portion is a region including the metal element.

5. (Original) A method according to claim 3, wherein the lower detection limit of SIMS (secondary ion mass spectroscopy) is $1 \times 10^{17} / \text{cm}^3$.

6. (Original) A method according to claim 1, wherein the upper portion is removed by one of wet etching, dry etching, and CMP (Chemical Mechanical Polishing).

7. (Previously Presented) A method according to claim 3, wherein the upper portion is removed by one of wet etching, dry etching, and CMP (Chemical Mechanical Polishing).

8. (Original) A method according to claim 1, wherein the continuous wave laser beam is emitted from one of continuous wave Nd:YAG laser, continuous wave Nd:YVO₄ laser, continuous wave Nd:YLF laser, continuous wave Nd:YAlO₃ laser, continuous wave glass laser, continuous wave ruby laser, continuous wave alexandrite laser, and continuous wave Ti:sapphire laser.

9. (Previously Presented) A method according to claim 3, wherein the continuous wave laser beam is emitted from one of continuous wave Nd:YAG laser, continuous wave Nd:YVO₄ laser, continuous wave Nd:YLF laser, continuous wave Nd:YAlO₃ laser, continuous wave glass laser, continuous wave ruby laser, continuous wave alexandrite laser, and continuous wave Ti:sapphire laser.

10. (Original) A method according to claim 8, wherein the continuous wave laser beam is second harmonic or third harmonic.

11. (Original) A method according to claim 9, wherein the continuous wave laser beam is second harmonic or third harmonic.

12. (Previously Presented) A method according to claim 1, wherein the continuous wave laser beam is emitted from one of continuous wave Ar laser and continuous wave Kr laser.

13. (Previously Presented) A method according to claim 3, wherein the continuous wave laser beam is emitted from one of continuous wave Ar laser and continuous wave Kr laser.

14. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film on an insulating surface;
adding a metal element for promoting crystallization to the amorphous semiconductor film;
heating the amorphous semiconductor film to form a crystallized semiconductor film;
irradiating a continuous wave laser beam to the crystallized semiconductor film in a direction from an upper surface of the crystallized semiconductor film to a bottom surface of the crystallized semiconductor film; and

using CMP to remove an upper portion of the crystallized semiconductor film to which the continuous wave laser beam is irradiated[[]].

wherein the upper portion includes the upper surface.

15. (Original) A method according to claim 14, wherein the upper portion is a region including the metal element.

16. (Original) A method according to claim 14, wherein the continuous wave laser beam is emitted from one of continuous wave Nd:YAG laser, continuous wave Nd:YVO₄ laser, continuous wave Nd:YLF laser, continuous wave Nd:YAlO₃ laser, continuous wave

glass laser, continuous wave ruby laser, continuous wave alexandrite laser, and continuous wave Ti:sapphire laser.

17. (Original) A method according to claim 16, wherein the continuous wave laser beam is second harmonic or third harmonic.

18. (Previously Presented) A method according to claim 14, wherein the continuous wave laser beam is emitted from one of continuous wave excimer laser, continuous wave Ar laser, and continuous wave Kr laser.

19. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film on an insulating surface;
adding a metal element for promoting crystallization to the amorphous semiconductor film;
heating the amorphous semiconductor film to form a crystallized semiconductor film;
irradiating a continuous wave laser beam to the crystallized semiconductor film in a direction from an upper surface of the crystallized semiconductor film to a bottom surface of the crystallized semiconductor film;

removing an upper portion of the crystallized semiconductor film to which the continuous wave laser beam is irradiated; and

patterning the crystallized semiconductor film into a shape after removing the upper portion of the crystallized semiconductor film[.],

wherein the upper portion includes the upper surface.

20. (Previously Presented) A method according to claim 19, wherein the upper portion is removed by one of wet etching, dry etching, and CMP (Chemical Mechanical Polishing).

21. (Previously Presented) A method according to claim 19, wherein the continuous wave laser beam is emitted from one of continuous wave Nd:YAG laser, continuous wave

Nd:YVO₄ laser, continuous wave Nd:YLF laser, continuous wave Nd:YAlO₃ laser, continuous wave glass laser, continuous wave ruby laser, continuous wave alexandrite laser, and continuous wave Ti:sapphire laser.

22. (Previously Presented) A method according to claim 21, wherein the continuous wave laser beam is second harmonic or third harmonic.

23. (Previously Presented) A method according to claim 19, wherein the continuous wave laser beam is emitted from one of continuous wave Ar laser and continuous wave Kr laser.

24. (New) A method according to claim 1, wherein the upper portion is a region from the upper surface to 50 nm in the crystallized semiconductor film to which the continuous wave laser beam is irradiated.

25. (New) A method according to claim 3, wherein the upper portion is a region from the upper surface to 50 nm in the crystallized semiconductor film to which the continuous wave laser beam is irradiated.

26. (New) A method according to claim 14, wherein the upper portion is a region from the upper surface to 50 nm in the crystallized semiconductor film to which the continuous wave laser beam is irradiated.

27. (New) A method according to claim 19, wherein the upper portion is a region from the upper surface to 50 nm in the crystallized semiconductor film to which the continuous wave laser beam is irradiated.